

Darwin explained in "Re: Design"

Jared Griffiths
Staff Writer

Charles Darwin's *On the Origin of Species* is one of the most controversial and influential books ever written. To celebrate the 150 year anniversary of the book's publication, the Literature and Environment Minor and Hennebach Program hosted a performance of Craig Baxter's *Re: Design*, a dramatization of the correspondences between Charles Darwin and Asa Gray. Throughout his research, Darwin maintained contact with Asa Gray, a retired botanist at Harvard. The play demonstrates how these correspondences influence Darwin and his ideas.

The performance, which took place in the Boettcher Room of the library last week, starred Dr. Steven Daniel as Darwin and Dr. Carl Mit-cham as Gray. Organized by Tina Gianquitto, the event was put on to enlighten the Mines community about Darwin's ideas, not to push a certain opinion toward natural selection.

The play is set up with Gray is alone on stage, giving a monologue commemorating Darwin's death. While Gray is explaining Darwin's poor physical condition near the end of his life, Darwin enters on cue, proclaiming, "My confounded stomach!" and takes a seat at one of the two tables. The action then moves to the past, when Darwin and Gray first begin corresponding about Darwin's theory.

Darwin and Gray begin to converse, through letters, discussing Darwin's new theory as it emerges. Darwin says, "Nature never lies, ergo theorizers are always right." Gray agrees with him. It seems that they are in total agreement over this theory and are very excited to meet each other. However, Gray avoids saying so directly, stating, "I have no favor nor predispositions toward any theory whatsoever."

In the following scene, Gray reveals to Darwin that he is a theist,

that he follows the Christian faith. Darwin does not seem to mind this, but he is at the time preoccupied with his son's scarlet fever. His son dies, and his contact with Gray lessens.

Darwin sends Gray a copy of the book in Scene 4, which represents the years 1859 and 1860. Gray tells Darwin that "the best part [of *On the Origin of Species*] is the whole," but says that the idea of natural selection for organs is a weak point. They discover that the community does not support Darwin's ideas, and they both realize that it may take a long time for the idea to sink in. Gray tells Darwin to be cautious about openly sharing his ideas because they may never be proven either way.

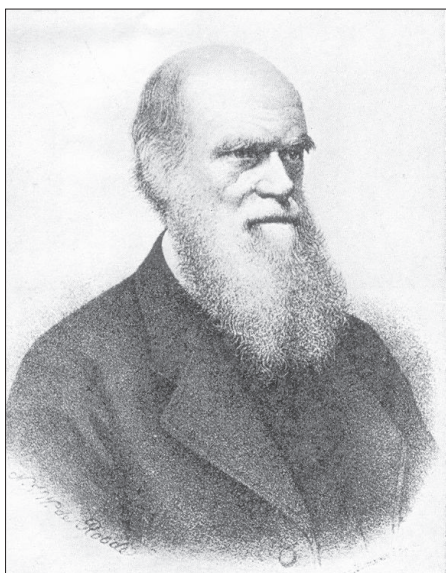
Finally, in scene 5, the big issue of the play emerges. Now that the ideas are published, Darwin is confused as to how far the theory of natural selection actually applies. He sees evidence of design, but doesn't understand how design can exist on all levels. One major point that would be important to theists and scientists alike is that Darwin thinks his views are "not at all necessarily atheistic."

The conflict emerges in which Gray and Darwin separate on interpretations of natural selection with design. Gray believes that design is obvious, but Darwin says he cannot see the world either as a result of chance or as a product of design. He declares that he is agnostic, despite previously having been Christian.

For the only time in their lives, the two meet in person in Scene 6. The narrator, played by Gianquitto, said, "The two theorists come together personally while moving apart theologically." At this point in 1868, they are excited to see each other but secretly disagree. Gray still respects the ideas of Darwin, but cannot be convinced that design is not crucial to understanding the theories.

The play proceeds with Darwin declining physically and still uncertain in his belief in design. The play returns to Gray commemorating his death in the final scene, and he says that although there were things that could not be worked out between the two of them, he still supports the concept of Natural Selection.

They play leaves the audience free to interpret Darwin's theories. Whether the audience member agrees with Darwin, Gray, or neither, the play explains the context of the theories and their importance. The play revealed what the famous, or perhaps infamous, theorist believed, and how it was interpreted by one of his closest acquaintances.



COURTESY WIKIMEDIA COMMONS

Charles Darwin, author of *On the Origin of Species*.



STEVEN WOOLDRIDGE / OREDIGGER

Levi Hamilton (#40) wins the game opening tip-off. More photos of the men's and women's games can be seen on page 4.

Registrar offers online ordering

Lara Medley
Registrar

As of November 6th, students and alumni can order transcripts from the Registrar's Office online. This new service also provides a means to order electronic transcripts, duplicate metal diplomas, and paper diplomas.

In order to provide these new services, the Registrar's Office will begin charging for transcripts. However, a student will be able to request a new electronic transcript to be e-mailed to his or her own e-mail address. Once received, that e-transcript can be e-mailed to as many prospective or current employers as necessary. One cost will cover many forwarded electronic transcripts. The transcripts are packaged in secure PDF files, and will indicate if they have been altered in any way. They are official transcripts with all of the required watermarks and signatures.

The Registrar's Office is providing a payment grace period for students who may not be immediately prepared for the change in cost. From now until December 15th, a student or alumnus can request a free paper transcript by coming to the Registrar's Office, by fax, or by mail. After December 15th, all transcripts will be ordered through the new system requiring the new fees - \$10 for electronic and \$12 for paper.

The cost for duplicate metal diplomas (\$150) and paper diplomas (\$25) has not changed. The only difference is that these can now be ordered and paid for online from anywhere in the world.

The service provides for paper transcripts and diplomas to be sent via Federal Express service, both within the U.S. and internationally, for additional fees.

This new system will be of great value to our alumni all over the world. Online ordering using a credit

card and receiving an electronic transcript file within 1-3 business days will be a huge improvement over the current service of paper and snail mail.

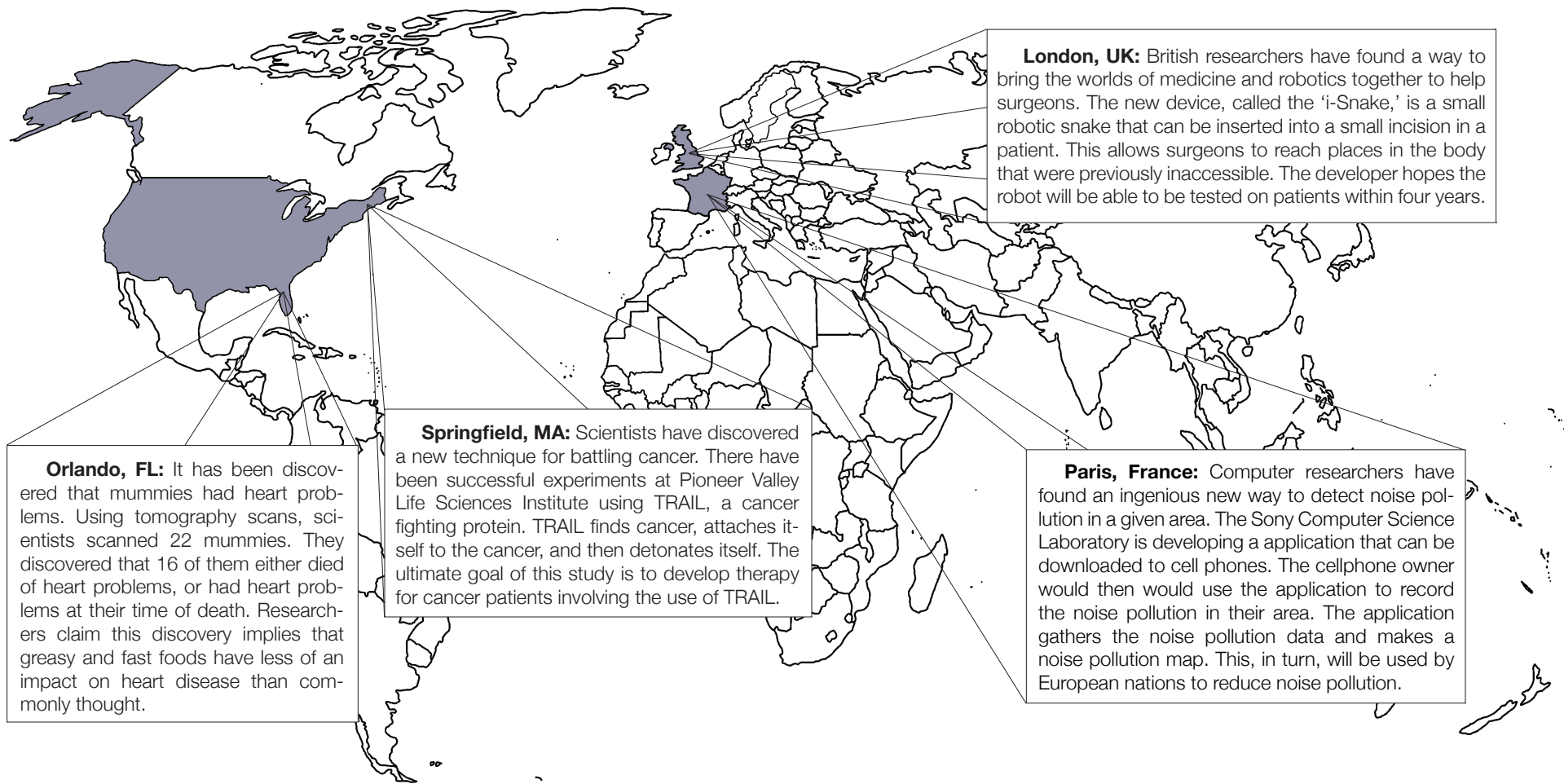
One of the exciting details of this new system is that it was developed by a local company out of the Denver Tech Center - Avow Systems. Avow employs both Mines graduates and interns. The company lead on the project is a Mines graduate from Math and Computer Science.

Also for Spring 2010, the ordering and delivery service for paper diplomas will be improved. The normal 8-10 week ordering and delivery process will be reduced to a 1-2 week process. This should help students who need diploma copies quickly for travel or employment reasons.

To view the new system and place orders, go to inside.mines.edu to the Registrar's Office website and click on the transcript link.

Scientific discoveries this week

Zachary Sorenson, Staff Writer



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ASSOCIATED
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Headlines from around the world

Emily Trudell, Staff Writer

Students at the University of California occupied portions of the buildings on the Los Angeles, Berkeley, Santa Cruz, and Davis campuses Friday to protest a **32% tuition hike**. University officials explained that \$505-million are needed to combat spending costs.

Oprah Winfrey announced that she plans to end her talk show on September 9 of 2011, at the end of the 25th season. The Oprah Winfrey Show has been the highest rated talk show for 23 consecutive seasons, with roughly 42 million viewers a week in 145 countries.

A gunman in **Saipan** in the Northern Mariana Islands killed four and injured six more before killing himself.

Vicks Nasal Sinus Spray was recalled in the United States, Britain and Germany after trace amounts of bacteria were found in product that that was made in a plant in Germany. The bacteria could cause infections for people with weakened immune systems, though no illness has been reported yet.

President Barack Obama met with the President of South Korea Lee Myung-bak in Seoul during the president's tour of East-Asia. Obama said that envoy Stephen Bosworth will be sent to **North Korea** next month to discuss dismantling the nuclear program in Pyongyang.

The United States Geological Survey reported that an **earthquake**

of magnitude 6.6 hit about 211 miles off of Canada's Pacific coast. A second tremor of magnitude 5.7 hit the area minutes later.

AOL announced that it plans to cut 2,300 jobs while restructuring the company in order to save \$300 million annually, though the restructure is estimated to cost \$200 million in the next year.

A gas blast in a coal mine in Hegang City, China trapped 139 miners; while 389 workers were able to get out of the mine. At least 3,000 people have been killed in **coal mine accidents** in China.

A study from Brown University announced that people who have been exposed to abuse **age faster**; due to a shortening of the protective caps of the

chromosomes that protect genetic material. Though these protective caps shorten with age, they were found to decrease quickly in subjects who are exposed to abuse.

The Cern **Large Hadron Collider** was restarted this week after 14 months of repairs. The collider was built to smash beams of protons together so that scientists may gain more insight into the creation of the beginnings of the universe.

A **Tamiflu** resistant strain of swine flu has infected five patients in Wales. Though the resistant strain does not appear to be more severe than the strain that has been circulating in recent months, officials still believe that it could be cause for serious health concerns.



Local News

The 21st-ranked Colorado School of Mines women's soccer team fell to #3 Grand Valley State by a score of 3-0 in the quarterfinal round of the NCAA Division II Women's Soccer Championships on Sunday afternoon at Auraria Field. The Orediggers in just their fifth season advanced further in NCAA Tournament play than other team in the history of Mines athletics while establishing a new program record for wins in season (19-5-1). The 2009 squad established a total of nine team records during the season. (courtesy Katherine Simmons)

The Colorado School of Mines men's cross country team and women's runner Sydney Laws competed in the NCAA Division II Cross Country Championships on Saturday afternoon, November 21st, at the Broadway Complex. The Oredigger men finished 3rd out of the 24 teams while Laws posted a 10th-place finish out of 184 total female runners. The CSM men have now finished in the top ten at the NCAA Division II Cross Country Championships five straight years and have earned 10 individual All-American honors since 2005. Sydney Laws became the third female at Mines to earn All-American honors in cross country. (courtesy Jeffrey Duggan)

Geek of the Week

...Mark Daubenspeck, Junior; Engineering Physics

Alec Westerman
Staff Writer

[Oredigger] Do you consider yourself a geek?

[Mark] Technically, yes, but I prefer the term nerd... Geek to me says, person living in his mom's basement. Nerd sounds like it implies a bit more intelligence.

Do you think others consider you a geek?

Oh, most definitely, there's no question about that. If they don't consider me a geek, they have many issues to work out.

What do you listen to your music on?

Mostly my computer, I have an iPod, but I don't use it too much.

Do you prefer Microsoft or Mac?

Definitely Mac, I can't game on it, but I pretty much use the computer for word processing and the internet anyways, and I'd rather have something that doesn't crash on me every five minutes.

Do you have any strange talents?

Memorizing video game trivia, if they ever had a video game *Scenelt*, I would win.

What is the geekiest thing you own?

You mean besides the 100 game video game selection? The usual plethora of D&D crap.

What is the geekiest thing you have done in your life?

Make jokes about solving everyday things using Lagrangian Dynamics.

Why did you choose to attend Mines?

It pretty much looked like the best school that was available to me, and I wanted to go to school in-state. Mines looked like it would give me everything I



needed... I really don't like to travel that much. It wasn't a [requirement], but I really prefer to stay in state... I like what's familiar. I don't like change that much, so the less changes, the better.

What is your favorite class?

That would have to have been high school physics. That's because I had a fantastic teacher... That's the reason I'm in the physics department right now.

What clubs are you involved in?

Only Students for Creative Anachronism... I'm just the president... We're a medieval recreation society... We're the ones with the swords.

What are your plans for after college?

First, I want to get a master's [degree] in mechanical engineering. After that, I have no clue whatsoever.

What are your hobbies?

Fencing. Obviously, video games... I don't have many hobbies besides fencing and video gaming... Not exactly well rounded, but...

What is something embarrassing about you?

I do find my crippling fear of heights somewhat embarrassing because I can't look over a second floor balcony without thinking, "Oh crap!"

If you could take three things with you to a deserted island, what would they be?

I'd love to say my DS but I know it'd run out of batteries... Realistically, at the very least, I'd like a good knife. Probably something that would hold water... Probably whatever my favorite book at the time is.

What sort of things do you like to read?

I really enjoy fantasy novels. I sometimes enjoy science fiction if fantasy is blended into it.

If you suddenly came by one million dollars, what would you do with it?

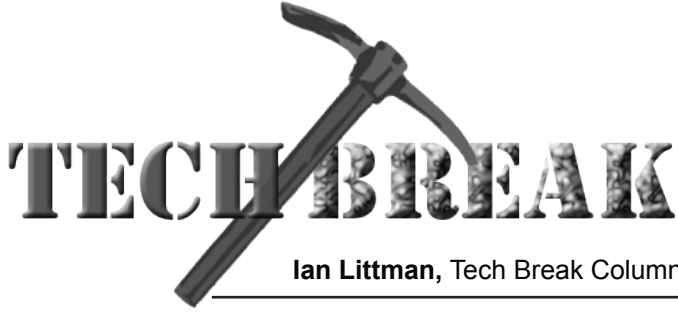
Ask someone who knew what they were doing how to invest it.

What is your favorite TV show?

Star Trek. Any Star Trek. If it's Star Trek, I'll watch it.

What is your favorite movie or movie series?

Star Trek. Except the Final Frontier. It is dead to me. As I'm sure, it is to most Star Trek fans.



Ian Littman, Tech Break Columnist

On November 19, Google opened their browser-as-an-operating-system concept, Chrome OS, to the world. The premise of the operating system: most of what people do today can be done, or is done within a web browser, so web browsing should be available on a device that looks like a netbook but works like an appliance: near-instant startup times, no bothering with software versions or security, just Internet. If you're wondering why Google would push a browser-as-an-operating-system concept so hard, Arbor Networks released stats a month ago that name Google as the source or recipient of about seven percent of the entire internet's traffic. So, quite literally, whatever is good for the Internet is good for Google.

Detractors of this system, which effectively brings back the terminal mindset of the eighties with a powerful, graphical browser instead of a command prompt, will say one of two things. Their contentions are that either you cannot do everything in a web browser, or you cannot rely on either "the cloud" or your connection to it for serious computing.

On the first point, these detractors are likely correct for their situation; there will always be activities that are either impossible or unenjoyable when done, either partly or wholly, on a computer that is not the one you are physically using. The detractors of the first sort tend to do more of those activities (mainly gaming and software development) than the average Joe. For these people, it bears repeating that Google isn't targeting "normal" computers for Chrome OS, at least for now.

The second class of detractors on the other hand are correct about 99% of the time; as soon as you leave home or school, chances are that you will not have a speedy, reliable link to the Internet, making web applications a bit of a drag. Additionally, whoever is providing your web applications could go down for any number of reasons, though you could conceivably host your own web apps, and the probability of losing a laptop (with all of your data on it) is greater than the probability of Google somehow deleting your data from all of its redundant servers and data centers at once.

However, the question of ubiquitous connectivity remains. Google has gone on record saying that the first wave of Chrome OS equipped notebooks will be WiFi-only, which on the surface complicates things even more. After all, a company by

the name of Gobi makes an all-in-one, \$150 laptop expansion card that provides mobile connectivity via AT&T, Verizon, or Sprint's 3G networks, and I'm sure these companies would be more than happy to subsidize that price down to below zero in exchange for roping subscribers into a two-year, \$60-per-month agreement.

Of course, at this point Google's logic becomes clearer. A two-year, \$60-per-month contract tied to a single computer on a slowish network with a relatively low usage cap is no way to get people happily using your web services. After all, with current data rates, a typical YouTube video, at about 10MB in size, costs a whopping twelve cents to watch, or sixty cents if you've gone over your monthly transfer cap. That kind of pricing makes mobile broadband a premium rather than proletariat service, which is exactly what Google (or any web service provider for that matter) does not want.

Even home connections are, at times, not quite reliable or speedy enough (particularly on uploads) to provide an enjoyable life in the cloud. Comcast is one of the better providers out there in this respect; by the end of next year, 100% of their network will sport upload speeds of 2 Mbps for their most popular tier.

They have had their service upgraded in the Denver area since the beginning of the semester, while Qwest has only deployed 5 Mbps upstream VDSL2 service to a handful of neighborhoods in select cities (not Golden), and cannot bring those speeds to very many houses due to their use of old copper lines instead of new fiber for the last few thousand feet. Verizon's FiOS product is probably the best connection for folks who want to compute on the web, but FiOS is not available in non-Verizon areas, and neither it nor equivalent products from other providers are going to go into areas that people deem "unprofitable" any time soon.

Yet this area is relatively blessed in terms of cloud computing readiness; in many places, lack of competent competition has left maximum internet upload speeds at 1 Mbps, sometimes lower. On a connection with 512 kbps of upload speed, a typical photo of 2MB takes a little over thirty seconds to push to the Internet, making full-resolution photo sharing rather infeasible. Video sharing is an even more laughable prospect under such conditions, yet that is what cloud computing would demand. Do not get me wrong; I have uploaded plenty of video clips over a 128 kbps upload wireless connection, but a person of grater sanity would have relented long before the task was complete. On the bright side of things, I was not forced to use satellite to complete the task, though it would be nice if Time Warner Cable would extend their plant just a couple thousand feet further to serve my house back home in central Texas.

Going back to cellular connec-

Chrome, Coverage, and Clouds

tivity, the situation worsens a bit. Though the ubiquity problem on connectivity is pretty much solved by the likes of Verizon and Sprint's 3G networks (yes, Verizon *does* have five times the 3G coverage of AT&T), speeds are low (yes, AT&T is faster than Verizon, but T-Mobile is faster still, albeit with an even smaller footprint than AT&T) and both minimum and overage pricing is high. On the speed side of things, on a good day, AT&T mobile broadband will settle somewhere between 1.5 and 2.1 Mbps on download speed with a data card, and push about 1 Mbps upstream. Verizon tends to be about half of that (though on a coverage vs. speed plot, Verizon wins hands-down) and Sprint is somewhere in between.

On pricing, everyone is universally bad; on AT&T, Verizon, and T-Mobile, you get your pick of a horrendously low-capacity plan for \$30-\$40 per month or a 5GB plan for \$50-\$60. CrickKet, the metro-area provider who doesn't even hand out public IP addresses to its modems and is renowned for the nation's worst-quality 3G CDMA network, does a little better on price versus capacity (5GB for \$40, 10GB for \$50-60) but is not so hot on speed.

Google's current solution is admittedly a

stopgap: partner with as many air-ports as you can to get free WiFi installed there, partner with Virgin America and Aircell to provide free broadband in the air, and pump millions into Clearwire, whose WiMAX network can provide several Mbps down and 1 Mbps up without needing to cap everyone at 5GB of data transfer per month. The other nice thing about Clear is their pricing. Unlimited mobile internet is currently \$30 per month for the first six months, then \$45 per month thereafter. Two lines of mobile service are a rather reasonable \$65 per month "for life," or \$50 per month (again "for life"), with the company's current promotion. The catch is that WiMAX is far from being everywhere; Denver is not even on the roadmap at this point, and rural areas may take awhile to cover with a technology on a frequency that, all else equal, propagates a little worse than WiFi.

The above predicament leaves us with a system that's a bit inhospitable toward life in the cloud. Developments like DOCSIS 3.0 for cable, fiber for telephone companies, WiMAX for Sprint, HSPA+ for T-Mobile, and LTE for Verizon Wireless may ease this burden, fueled by some of the \$7.2 billion broadband stimulus package set aside earlier this year. It actually seems rather fortunate that Google's release date for Chrome OS is a year away; perhaps things will have gotten better by then, though I have a feeling we'll still be far from a connected nation, able to merely log into a computer to make it our own, and pull all of our data and applications over a high-speed connection from anywhere we might need them.



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CSM volleyball finishes strong

Alec Westerman
Staff Writer

This year, the women's volleyball team has made it to regional quarterfinals.

The current coach, Jamie Skadeland, described the start of her career at Mines, "In 2007, I was assistant coach... we were 11 and 20." In 2008, she took over as head coach, and the team was 19 and 13. Skadeland explained, "That was my first year as coach... This year we were 22 and 9."

When asked what her goals were for the team going forward, Skadeland replied, "The team sets their own goals." This year those goals included getting to the RMAC tournament and getting to regionals.

In describing how the team has come along in regards to those goals Skadeland said, "We just have regionals left." She added that they were facing the number one team in the nation and that they weren't expecting things to be easy.

Skadeland explained that at regionals, "You play till you lose."

She explained that there are three games if a team goes all the way.

The number one seed, St. Paul Minnesota, explained Skadeland, are "number one for a reason... they're really balanced." In addressing how the team has met this challenge, she explained, "We've been working hard on how we're going to score against them and defend against them."

Unfortunately, Thursday night when CSM went up against St. Paul, CSM lost 3-0 at the regional quarterfinals. However, there several victories that should be noted. According to the volleyball website, this year's team "ranked second in the CSM career record book in block assists (388), third in total blocks (450), fourth in kills (1,266) and fifth in total attacks (3,159)." Additionally, "Colorado School of Mines established new single-season program records for overall victories and conference victories in 2009... The Orediggers, who recorded a new program record for consecutive matches won (nine) in 2009, were ranked as high as #10 in the Central Region rankings this fall."

Students relax with ultimate

Katie Huckfeldt
Staff Writer

Joining in on one of the club Ultimate Frisbee practices will quickly show that frisbee is no longer just a simple game of tossing and catching, but a sport that claims its own.

Michael Vadman, the sophomore club treasurer of men's Club Ultimate, said he chose Ultimate over the many other IM and club sports offered at Mines because "it is a unique sport. There is something about it you really don't get in other sports."

The teams work hard, practicing three times a week, but everyone still has a good time. Vadman describes Ultimate as a "fun way to get out and have fun without all the pressure of a varsity sport." Club differs from IM in that both men and women's teams compete nationally. During the fall, the teams prepare, going to tournaments in New Mexico, Utah, and Kansas, as well as a few co-ed tournaments in-state. In the spring the national tournaments take the teams to New Mexico, parts of Colorado and the highly-regarded "Trouble in Vegas" tournament, which is by far the highlight of the spring season. Last year the men's Ultimate team

ranked an impressive 115th out of the 658 teams nationwide.

Erinn Reinbolt, a freshman on the women's ultimate team, explained why she joined Ultimate, "I threw a frisbee around with my boyfriend, who plays Ultimate, and he dragged me to practice." She said that "everyone is really helpful for beginners, and they are fun to hang out [with]." Watching the running and passing drills, it is clear that Ultimate is taken seriously, but no one is without a smile and positive encouragement. Reinbolt has only been to one co-ed tournament, the Freight Flight Halloween tournament in Fort Collins, but said, "It was a fun time and I learned more about the flow of the game." She plans to continue Ultimate for the spring semester and said, "I can't wait for Vegas!"

Mines students looking for a fun way to relax and get some exercise should check out the men and woman's teams, both of which are looking for new members. Any skill level is able to join and practices are three times a week, different days depending on the team. Ultimate is quickly becoming an up-and-coming sport across the nation, so join in by talking to the Club Sport office for sign-up information!



KATIE HUCKFELDT / OREDIGGER

CSM basketball

Men's and women's basketball both prevailed in their respective competitions this week. The men's team defeated both Southwestern Assemblies of God University and Azusa Pacific University last weekend. The women's team won their game against Hawaii Pacific University.



Gordon Galloway (#52) blocks a layup inside the paint.



Brett Green, #11, edges out a SWGU defender for a successful 3-point shot.



Sean Armstrong (#5) goes for the basket.



Emily Dalton (#15) defends against Hawaii Pacific.



Emily Dalton (#15) takes a shot against Hawaii Pacific defense.



Emily Dalton (#15) makes a layup despite being double-teamed.

ALL PHOTOS STEVEN WOOLDRIDGE

Flashbulb Fires revel in the *Glory* of their debut

Tim Weilert
Content Manager

There is a sort of joyful bounce that winds itself along the melodies throughout *Glory*, the premiere full-length album from Denver-based Flashbulb Fires. Formerly known as Fiancé, Flashbulb Fires has taken the accessible piano-pop-rock format and produced a solid album with considerable replay value. *Glory* certainly appeals to fans of The Fray, but also draws enough parallels to the likes of Arcade Fire and Sufjan Stevens to be acceptable by the most staunch non-conformist music aficionados.

From the first two tracks, "Pyramid Scheme" and "Revenge Song," it be-

comes obvious that the listener is in for a treat. The songs do a good job of setting up the tone for the rest of the album while showcasing the Flashbulb Fires sound at its best. While a general theme threads its way through the album, each song maintains a certain air of individuality. This, in and of itself,

makes *Glory* one of those albums that has excellent replay value.

"Rope and River" combines Sufjan-esque bells and piano with moody vocal delivery similar to Eleanor (another Denver band). In stark contrast, "Brunette" is a short, poppy number that sounds like it could be a television theme song. Toward the end of the album, "Ambulance" turns up the folk with soft slide guitar, harmonized vocals, and acoustic guitar.

Flashbulb Fires will officially release *Glory* on December 18 at the Hi-Dive. Also playing that night are Danielle Ate The Sandwich and Kissing Party. Free downloads of the tracks "Revenge Song" and "Ambulance" are available at www.flashbulbfires.com.



Citrus and pine beer pleases

Kevin Lock
Staff Writer

Modus Hoperandi by Ska Brewing is a taste change-up from everyday beers and a welcome change from most India Pale Ales (IPAs). The sweet, flowery aroma of this beer greets you with a handshake, saying, "This is gonna be good" before you even get your lips to the glass. When poured properly, this brew comes out with a thick, creamy head and a cloudy amber color; however its presentation is not very resilient, so I recommend drinking while it still looks good!

The citrus and hop kick you in the mouth and throw a party on your tongue before they graciously satisfy you on the way down, leaving a sweet, flowery aftertaste, which is contributed by the pine added to this beer. This beer is sweeter than most IPAs but it still packs the punch that IPAs are known for.

I would highly recommend this beer to kick back, relax, and have a good time. It is lively and makes you feel as though it is impossible not have a good time while drinking it. Just visit the Ska Brewing website, skabrewing.com, and you'll be convinced that music is necessary to accompany this beer.

According to a fellow taster, "Wow that's different for an IPA, it seems to be halfway between a light and dark beer. It has a good flavor and a spicy aftertaste; it is definitely a recreational beer. After a few sips I almost could not resist slamming it and running to the store

for more." I feel Joe did a great job in summing up this beer; it has a great flavor but exceptional drinkability for an IPA with almost no harsh, bitter aftertaste which can make some IPAs hard to stomach if you are drinking more than one.

Ska Brewing is based out of Durango, Colorado and is run by Bill Graham and Dave Thibodeau. They started brewing beer to avoid liquor laws, if you make your own beer then you can have all the beer you could ever want! The creators of Ska Brewing were rebellious toward large corporate breweries and they actually have a rather entertaining cartoon on the website talking about the epic battles between the small brewers and bigger companies.

One of the best parts about this brew is that it comes in cans which are much more welcoming in the backcountry than bottles. If you can handle the extra weight on the way in, this is a great beer to pack along with you on any adventure because not only does it taste great, but the cans are very easy to pack out to your nearest recycling bin. If you do pack this with you and you are not careful, it may be possible to live out the quote for this beer on Ska Brewing's webpage, "A mix of citrus and pine that will remind you of the time you went on a vision quest with your Native American cousin and woke up in a pine-grove full of grapefruit trees."

Modus Hoperandi is about nine-dollars a six pack with ABV of 6.8%.



Coffee and students benefit each other

Jared Griffith
Staff Writer

Just a little coffee shop on the corner of Washington and 14th, Higher Grounds has been serving the caffeine needs of Golden and the Mines community for about 10 years. With a comfortable, artistic atmosphere, the shop can be a fantastic place to sit and study if students need the extra boost of energy. One of Higher Grounds employees, Sean, said that the shop "gives students a comfortable place to stay up and study." He explained that "[graduate students] buy a lot of stuff for professors to butter them up for their thesis papers." This should come as no surprise as a convenient walk down 14th and back could make the difference between an angry advisor and a happy one.

During the school year, the Mines community comprises between a third and a half of the business of the coffee shop. Sean noted that professors tend to stop by in the mornings before class to relax and prepare for their day while students usually show up in the evening to relax and get their homework done. The shop stays open until 7:30

PM every day and opens up at 5:30 AM on weekdays, 6:00 AM on Saturdays, and 6:30 AM on Sundays. It offers free wireless internet access to enjoy with your drink or snack.

Along with giving a chance to wake up and do homework, Higher Grounds also hosts Anonymous Right Brains's Open Mic Night every other Thursday evening. Performers for the club event are given a free drink for their entertainment. Higher Grounds has been known to have a full house for those nights, and business does increase a bit at those times.

When asked what the most popular drinks on the menu were, Sean immediately replied, "Black coffee!" The second most popular, he said, was Chai, "If you don't like coffee but you need the caffeine."

Whether students like coffee or not, Higher Grounds has a unique atmosphere that has been helping the Mines community for almost a decade. Only a block away from campus, it is extremely convenient and easy to find. Higher Grounds provides a way for students to spend their time enjoying a well-earned cup of coffee in the cozy little coffee shop.

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AND MONDAY NIGHT FOOTBALL
 from game kick-off to final play 9/14/09-12/28/09

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\$3.50 Domestic Pints • **\$4.00** Craft/Import Pints
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EXTENDED FOR MONDAY NIGHT FOOTBALL

Yard House supports designated driver programs. We card anyone who looks under 35.

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Minds at Mines

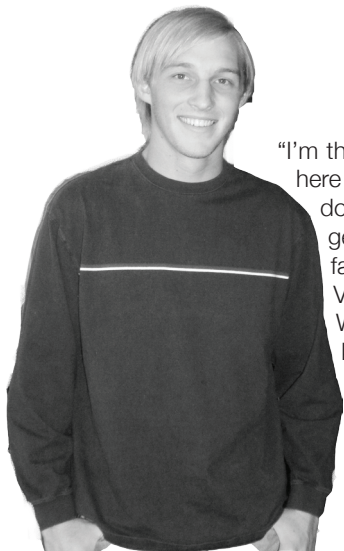
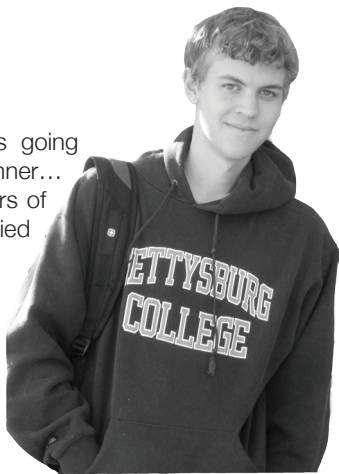
Giving Thanks

Roby Brost
Staff Writer

When registration woes and feelings of frenzy due to finals seem to overwhelm, it is easy to forget all the good, pleasant occurrences. Then, like a beacon of light at the end of the tunnel (not the one signifying a train...), Thanksgiving break comes around; then it's turkey, tofurkey, yams, marshmallows, and other delectable delights that come from the oven. It is not, however, all about the food. There is also the fond embrace of family, no matter how dysfunctional, or a phone call to connect, even if not over food. It is times like these, amidst the crisp fall air and the apple crisp, that the pleasant occurrences, the recollections of Aunt Marge's tea cup poodle eating the turkey, that illustrate the many things that people are thankful for. Here on the Mines campus, many are thankful for diverse reasons, whether it is friends, family, food, a combination of the three, or something else entirely. Minds at Mines just wants to take a moment to give a little thanks.

"I am thankful for 'turkey-jerky' it's going to be my turkey for Thanksgiving dinner... I'm basically thankful for the many hours of sleep. And of course turkey-jerky and dried cranberries."

Zack Havens

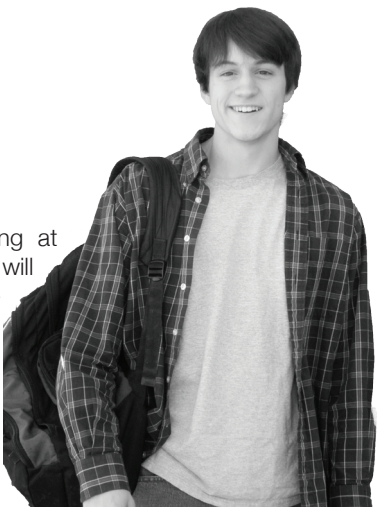


"I'm thankful for all of the friends I have made here at Mines. Since I am from Alaska, I don't get to fly home for Thanksgiving, but getting to spend it with friends and their families is nice. I am going to drive to Las Vegas with two of my friends in my car. We're bringing pies, and there will be turkey at the end. It will be amazing."

Tim O'Leary

"I am going to be Thanksgiving at home, which will be awesome. I will probably also be doing some donuts in the snow."

Alec Geatches



"I am thankful for having a break from school. It will be nice to go home to see my family as well, but I am really thankful for the break..."

Maggie Hunt

"I'm thankful for my family, and all the love that they have for me, as well as their support. I get to go home and may have dinner at my grandparents' house too. They live down in Farmington, New Mexico. It should be a fun drive."

Challyn Pfifer



ALL PHOTOS ROBY BROST / OREDIGGER

What's your Beef?



Jaime Thorpe
Student Body President

"Please tune the pianos. Many students play on the pianos, and even more get to enjoy the music. Intonation is key to sweet sounding music."

Good news! Lisa Goberis, the person who makes the student center stay up and running, said that the pianos get tuned twice a year, but if any of them are in desperate need right now that she would get a piano tuner out to fix the problem.

"Why on earth are the door handles on the student center so bloody low? I can't exactly open them with my knees."

I asked Lisa Goberis about the history of this issue, and she told me that the reason the door handles are so low is that at the time the building was remodeled, the ADA required door handles to be at that height. This ensures that the handles are at a level such that all people, regardless of height and including those in wheelchairs, can reach.

"If they're going to have school on a snowy and icy day, why can't they salt the sidewalks before the 8 am classes? The Friday after the snow day, the sidewalks were all icy at 7:45."

The facilities management folks

who are responsible for making campus safe for us arrived at about 4:30am that morning to shovel, plow, and de-ice, and though the sidewalks were iced in time, it didn't do much good because of the weather conditions.

"I took one credit over the summer and my tuition doubled just because of student fees. For taking one credit hour I don't think I should be charged the same as someone taking 19."

First off, no one takes 19 credit hours in the summer (it's not allowed.) For summer & field sessions, mandatory fees are charged starting at one credit hour because students requested to use the Recreation Center and Health Center, as well as have building access during this time period. Fees are not charged based on the number of classes you are taking, they are charged because you are on campus and using the schools resources, and have the opportunity to do so equally with those who are taking the maximum number of credit hours.

"Why can't we be a smoke-free campus? Smoking outside the buildings is annoying and harmful to innocent students just trying to get to class!"

We have contacted campus po-

lice to put up signs at major entry ways informing smokers that the law states that smokers must be at least 15 feet from entryways. In addition, an email will be sent out to campus to remind people to be considerate of others.

"Something needs to be done about parking. There are way too many times when I'm late to class just because I can't find a place to park. If nothing else, the fact that more students than usual were admitted for next year should make the parking problem more prevalent."

First off, more students than usual were not admitted for next year. In fact, the school is trying to keep the incoming class at the same size it is now. As for the actual parking issue, your ASCSM officers, especially those on the parking advisory committee, have been trying to figure out a way to create more parking out of the same amount of space. Unfortunately, due to upcoming legislation by the city of Golden, parking is likely to get much worse before it gets any better. Right now, the only way to avoid being late to class is to get here earlier.

Parking sucks, deal with it

Lily Giddings
Managing Editor

One of the main grievances on the Mines campus revolves around the parking situation. There isn't enough of it, I can't park where I want to, why are they taking away street parking, etc. What no one seems to notice is that a lot of these can be addressed by those who drive.

Admittedly, the parking situation on campus is not ideal. However, we could do a lot to make it better. First of all, stop whining that you can't park near your classes. Realize that the only way to guarantee a parking spot near your class is to park your

car there and then just walk for the rest of the year.

Otherwise, you are going to have to try your luck when everyone else wants to park, or get here ridiculously early. No amount of whining is going to change that. It's not the end of the world if you have to walk a block or two from the nearest parking lot to your building.

Secondly, stop parking stupidly. Don't park too close to curbs, corners, fire hydrants, and other cars. These practices are what cause the city of Golden to rethink allowing students to park on the streets. We do not own the streets. Parking in front of people's driveways, or even too

close to those driveways, is rude and dangerous.

Finally, there really is not enough parking on campus. This is just something we are going to have to deal with. Instead of driving your car in alone, car pool! Take the bus, walk if you live close enough. And most of all, **make sure you know how to parallel park.** One of my pet peeves is driving by a spot that is almost big enough for another car to fit and realizing that it is just too small because someone has parked too far from the car in front them, or from the line. Seriously, just get out and check.

To sum this up: parking sucks, deal with it.

Tim's two cents

Restaurant etiquette

Tim Weilert
Content Manager

Usually it takes me a while to find something to become incensed about. This week was different. A group of friends and I decided to go to Mannie & Bo's pizzeria for dinner early last week. As we were seated our host informed us that the previous day a large group of Mines students had come in to the establishment, rung up a large bill, and skipped out on the tip.

There are some important lessons to be learned here that extend beyond Mannie & Bo's and even the time spent at CSM. First and foremost, we live in a society with a booming service industry. As such, it is customary to tip for

services at places like restaurants, bars, taxicabs, hotels, and beauty parlors. To further make this point, many wait-staff at restaurants receive less than minimum wage, so tips make up an important portion of their total income.

Furthermore, whenever a discount is offered (especially in generous cases, such as the CSM student discount at Mannie & Bo's), the tip is expected to be on top of the **original bill**, not the discounted price. Places that offer student discounts should be tipped above the low-cutoff of 15%, with 20+% as a more gracious way of saying "thank you."

It would not surprise me to see student discounts vanish if stiffing continues. I, for one, would be saddened by such a prospect, es-

pecially because I personally enjoy patronizing local businesses with aforementioned special offers.

Times are tough and that extra money may be hard to come by, but remember this, even though you, as a future-graduate of CSM, may find yourself in a white-collar job, never under-appreciate the hard work of the service industry. Tip generously.

Editorials Policy

The Oredigger is a designated public forum. Editors have the authority to make all content decisions without censorship or advance approval and may edit submitted pieces for length so long as the original meaning of the piece is unchanged. Opinions contained within the Opinion Section do not necessarily reflect those of Colorado School of Mines or The Oredigger. The Oredigger does not accept submissions without identification and will consider all requests for anonymity in publication on a case-by-case basis. Submissions less than 300 words will receive preference.

Fool's Gold

"Avon living at a reduced rate."

Kafadar to get playground

School spares no cost

Janeen Neri
Investigative 5-year-old

Mines' class of 2012 has decided that their class gift will be an adult-sized play structure in Kafadar commons. "We won't be graduating for a couple more years," says sophomore representative Phoebe Terese, "but we knew we had to get on this one fast because of the size of the project. We had to get everyone's approval, both in the class and [in the rest of the school]."

Of particular concern were the numerous Ultimate Frisbee teams that play on Kafadar on any given day. "We knew a playground would be cool, but at the same time we didn't want to get half the students mad at us for dumping a bunch of play equipment in the middle of their Ultimate game. We had people watching the teams play for a couple weeks before we could decide on a good placement," said Terese. The class finally settled on the strip of Kafadar closest to Stratton Hall; this prevented the structure from blocking either the Frisbee players or the pointy rock sculpture.

Also, as math professor Tim Jamal put it, "the Chauvenet people were definitely the loudest in approving this site. We're the ones most likely to sneak out and take a few trips down the slides when the students aren't watching." This statement was followed by a large grin.

Even after settling on a good site, however; the sophomore class still had to persuade the faculty senate and board. "We were a bit hesitant about the project at first," said faculty representative Ralph Tennelli, "because you have that beautiful landscaped lawn and trees, and then suddenly there's a jarringly colorful plastic thing whomped down in the middle – not to even mention the whole liability issue. But at the same time, we were all secretly thinking about how awesome it would be to have an enormous playground on campus, so our 'arguments' were a little half-hearted."

More detailed plans for the play structure are now in progress. "You can't just buy an off-the-rack play structure that'll fit college students," said Terese, "and we want this to be so huge that it looks just like playgrounds did when we were five. We want humongous slides, seven to eight foot-high monkey bars, five or six swings so you never have to wait for one to be open and so on. We want there to be laughing and screaming on the day construction is finished."

School officials warn, however, that current Mines students will likely not see this day; "It's a big job," said Tennelli, "and I wouldn't expect to see it done until 2015 at the earliest. There are a lot of things in the pipeline right now, and 'cool' play structures fall low on that list, definitely *after* repaving the area in front of Green Center and design-

ing large, expensive ads for DIA."

Tentatively, the playground will include a central structure with stairs, slides, and possibly steering wheels and ball mazes, with a set of monkey bars leading off one side and a zip line on the other. There will also be a stand-alone swing set a few feet away. In the weeks ahead, the sophomore officers plan to present a poll to the student body about other attachments, such as climbing nets, balance beams, and playground telephones. These were deemed to have a lower priority than the main components, and they cannot all be implemented due to cost restraints.

Due to safety and other concerns, the play structure will have a rubber matting underneath it instead of the sand that was more traditional in the class of 2012's youth. "It's a small price to pay," said Terese, "trading sand castles and villages in for what are perceived to be safer, more sanitary conditions. We're definitely willing to bend over backwards to prove that this structure will *not* produce liability issues in any way... we are adults, after all! None of that helicopter parent stuff to worry about in *this* playground."

What do you think of the new play structure? Is it a good idea, or will the costs outweigh the fun? What equipment would you like to see put on the poll? Voice your opinions at the next ASCSM meeting!

Library entrance

to be walled over

Janeen Neri
Mason

Last week, school officials revealed plans to remove the front entrance to Arthur Lakes Library. The plan was officially conceived after several coffee cart patrons complained of the drafts. "In and out," said one anonymous note, "out and in! Is that all people do when they come to the library? Decide 'Today, I want to annoy those poor caffeinated fellows that just rolled out of their warm beds!'"

This is not, however; the first time administrators have recognized the problem with drafty doors. "There are a lot of issues with those doors," said campus security official Isaac Vesseter, "for one, they provide an exit through which students can leave the library with valuables. Sure, we have those beeper things, but since when has technology stopped a determined Mines student?" In past years, concerns have also been raised over the doors' large glass windows, not to mention the constant opening and closing.

"As responsible stewards of the earth," said faculty senate member Owen Rogers, "we should not be wasting so much energy heating a building, only to have that energy leave through those superfluous panels of

glass. Completely irresponsible."

At a more aesthetic level, the large doors and their accompanying security devices mar the smooth appearance of both the interior and exterior of the building. "You have this whole building," public relations coordinator Yvette Tanner explained, "with no doors... no doors... then suddenly, BAM. Huge gaping sore on the clean lines that every library deserves."

Library decorator Olive Williams had a slightly cozier take: "With that space walled over, we would have more room to hang our extensive collection of abstract and pseudo-Greek artwork. Heck, we might even have room to frame some of those jigsaw puzzles we've finished!"

The plan has been met with some criticism from the student body, who seem to think that they will be unable to access the library if the front door is walled over. "That's a misconception," said traffic flow analyst Eric Rowles, "based on the myth that there is only one way to get into the library. There are, of course, all those other doors -- wait, never mind --those are emergency exits. But I hear that next semester's EPICS 1 teams will be designing a teleporter with tin foil, solar panels and, a \$10 budget so, doors will be obsolete in a matter of months anyway!"

THE RUMOR

MILL

Campus rumors debunked

Mike Stone
Researcher

Rumor: Complimentary plates and silverware for all freshmen dorms will be given out next semester.

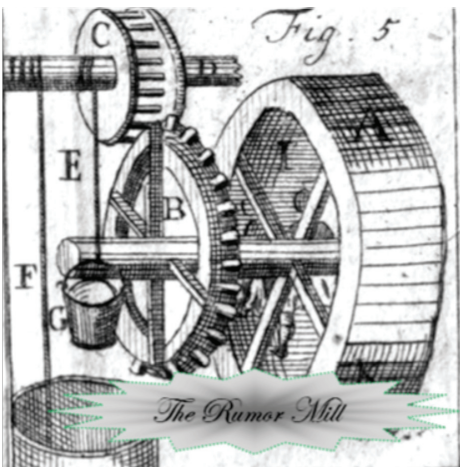
Status: Busted

Description: The Slate Café can't support giveaways along with the current rampant plate stealing.

Rumor: New cement patch in front of the Green Center is pretty.

Status: Confirmed

Description: What? Can't a guy admire fine masonry?



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3				2	7			
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— solution —

6	3	8	9	5	7	2	4	1
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8	6	3	5	1	9	4	7	2
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Only at Mines: presentation screw up

Mike Stone
Grand Puppet

WARNING: The following story is TRUE.

Sickness struck me last week. I had been plagued with the flu just a few weeks ago so, there's no way this could be the same thing, right? I had a terrible cough, a headache, and a runny nose. In fact, my nose had been running itself into fluid dynamics history books by the minute. Long and short of it, my head was in a cloud for days, which irrevocably led me down the path to make me do it; I gave a presentation in the wrong class.

After a long and cloudy Tuesday, my longest class day of the week, I found myself crashing instantly into the warmth of my pillow and bed as soon as I reached home's door. Unable to control the physically draining feeling I had had since waking that morning, sleep quickly took over even though it was four in the afternoon.

Sweet justice awaited me on the other side of my eye lids. A world without coughing and sneezing put me at my imagination's farthest reach. I was the Lacrosse King of Puppy Island and the fierce Bikini Women Pirates of Ice-cream Gulf were attacking. I would have to assemble the troops to defend ourselves but, those cute little puppies were just so precious when they sneezed! Right as the Bikini Women Pirates overtook Beergut Hill and I would have to defend myself, "COUGH!" A giant self-induced dream killer pulled me back to my now dark room in Golden.

Would Puppy Island ever be safe from invasion? It was too late to find out as it was now 8pm and I had homework to accomplish.

Homework, as the very name implies, is to be done outside the reaches of class where it may be most convenient: at home. At this school, however; it most often means in a lab under florescent lighting next to the people who probably gave me my cold. Luckily for me, I had to complete my Robotics homework, in simply making a PowerPoint presentation on the "Robot of the Week," so, I stayed home. A few pictures here, a few motor characteristics there and, our presentation was complete. I sent it off to my lab partner and saw it appropriate to eat some dinner. My sickness, on the other hand, seemed to disagree and over the next 12 hours, coughing, sneezing, and painfully irritating bathroom tissue filled the voids between sleep.

Now, 9 am had arrived. My alarm clock was in full swing. I wake up at different times everyday due to the varying class load. This is why I set the alarm last night but, that seemed like only 20 minutes ago. Has this damn cold really stolen that much sleep from me? My body still ached, and I knew today would not be a good day to go to class, since I did not want to give away this hell that is cold but, presentation days are specific days when duty calls upon boys to be men.

Maybe a shower would help. Nope. Maybe some Dayquil would help. Meh- a little. The drive to school could provide fresh air.

Nada. I guess I'm going into battle with just the thumb drive and a pocket of Kleenex.

I arrived in Brown Building a full 15 minutes before class. The previous class had let out early so, after taking off my jacket, I went straight up to the front computer to load up the presentation since, that's how class always starts. After waiting for a long boot-up, I quickly brought up the PowerPoint, clicked on the YouTube video, let it load, and returned to my seat. With my whole body aching, I wasn't going to stand at the front for another ten minutes until class started.

As the clock ticked closer to 10am, I realized three key things about that particular morning. First, my partner had not yet arrived. Was he sick like me? Perhaps when my cold was just starting out, I was more contagious than I thought and had accidentally given it to him. How could that be since, I had only realized that I was sick for an hour or so before I first saw him yesterday? The reasons were irrelevant, as it became apparent that I was doing this presentation alone.

Second, the teacher was also absent. Cara Coad normally arrives a few minutes before class to shoot the metaphorical poop about lab or plans for the weekend. What was different today? Maybe traffic had gotten to this anti-tardy all-star just once. Again, the reasons were irrelevant, as I was going to give my presentation and get out of there regardless because, I wanted back in bed for lack of traffic or not.

Third, the people in the class seemed a little unfamiliar. Surely, I had seen them before, as we have

had class together for months now. Yeah, I had missed three or four sessions since the start of the year, but surely, I would recognize the majority. Oh, well. I guess my mind is playing tricks on me. This presentation would happen and they would be impressed.

10am: Zero hour. I plainly walked up to the front after one last clearing of the nose. Facing my audience, I gave a questioning look to them noting the absence of the teacher. "Should I begin?" I asked a kid up front.

"Why not," he replied with a sense of interest in his tone. So, I did.

"I am Mike Stone. Sorry for my partner's absence; he's sick today so, I'll be giving the presentation alone. Ok, our robot is a fast, manipulating hand..." Slick, I know.

One slide, two slides, three slides in and not a hitch. I hadn't practiced this presentation but, even I can admit, it was sounding pretty good. Right on the fourth slide, reality came striking down. One lone hand slowly sprang up at the very back of the room. The brave now had a question. I called on him expecting a question about the harmonic gear trains or program timing. The reality took me by surprise.

"You know this is a mining class, right?" he asked as though he was in the wrong room.

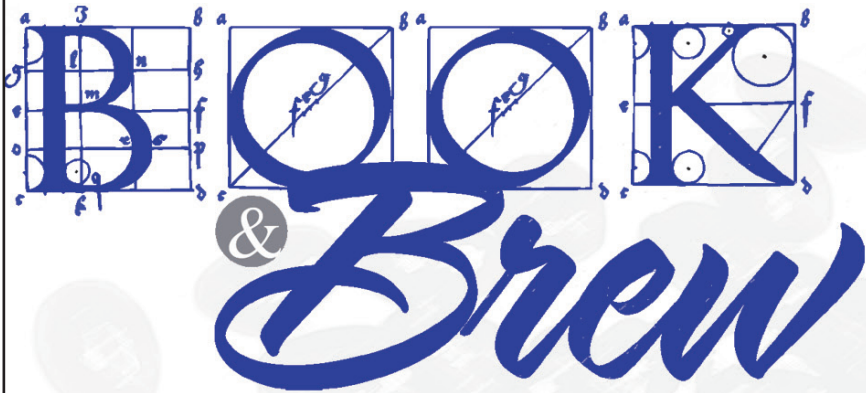
"What?" I asked as realizations crept into my brain, "What time is it?" I soon learned that my class was the NEXT class to be held in this room. Not the present one. My partner was not absent because he was sick. It was because he

was probably just waking up. The teacher was absent not because of traffic but, because she's still in her office for office hours. The faces in this class were unfamiliar not because I had missed one too many classes, but because I had missed ALL of the classes. I was in the right room at the wrong time with my pants around my ankles!

Not for lost, I showed the class the YouTube clip as I collected my shame and everyone laughed with reassurances that they were not in the wrong. Low and behold, I was the guy with that responsibility. Just after 10:03, the real teacher walked in and seeing a robotic hand onscreen, did a double take. "I'm early. You're not," I explained to him. His momentary lapse was all too known. His reason for tardiness? Traffic.

Yes, this story may seem long and complicated but, it is simplistic in its theme. A sick person is not just a sick person, but an animalistic being that goes back to its primitive roots and listens to whatever alarm clocks tell them. The sickness clouds their brain and convinces that 11 am is really 10 am. Daylight savings is simply a flaw that needs correcting and logic can explain even 30 people's absence. It was the sickness that clouded my judgment during the events preceding my mistake and sickness that annoys me today.

Did I complete the presentation in my ACTUAL robotics class? Yes, but not with such a grand effect. Finally, I simply warn the readers not to let this happen to them as I suppose this is the sort of thing that can only happen at Mines.



at Arthur Lakes
Library



...Get Your Coffee On

- Hormone-free Milk
- Do you work on Campus on Saturdays? You can now get your AFPP (afternoon face plant prevention) at the Book & Brew

- PROUDLY SERVING
- ALLEGRO COFFEE & TEA
- ORGANIC ESPRESSO DRINKS